| A-16 Lead | Lead Agency | 1) Programs Supported By This Data | 2) Uses Of This Data | 3) Do You Have A Current Charter/Plan For Collection? | 4) Is Metadata Discoverable Through The NSDI Clearinghouse? |
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| **A) Bathymetric Elevation** | US ACE | NOTE: Under A-16 Elevation is split into Bathymetric and Topographic. US ACE and NOAA are the leads for Bathymetric. To date no progress has been made on the standard and it is not clear how the standard will be developed. | | | |
| **B) Earth Cover. (Multi-Resolution Land Characteristics (MRLC) Consortium)** | USGS | The MRLC Consortium includes agencies within DOI, USDA, EPA, NOAA, and NASA. All are users of satellite data and land cover derivatives. | 4 datasets are available: Landsat-5 satellite data for the conterminous US; National Land Cover Dataset; Landsat-7 satellite data for the entire US and Puerto Rico; National Land Cover Database. Specific applications for this data are described at: http://landcover.usgs.gov | The MRLC Consortium was created by a MOU in 1994. Additional partners joined in 1996 and 1999. The current MRLC workplan was written in 2001 and is updated as needed. | National Land Cover Dataset 1992 and all associated metadata are available at: http://landcover.usgs.gov |
| **C) Flood Mapping** | FEMA | National Flood Insurance Program of the Federal Insurance and Mitigation Administration | Determination of flood insurance rates for properties based on flood hazard zones. Determination of flood-prone areas for local government regulation of development. | FEMA has a flood mapping guidance document 'Guidelines & Specifications for Flood Hazard Mapping Partners' which details how to collect data for flood maps and how the products should appear. | Digital Flood Insurance Rate Map (DFIRM) metadata will be delivered with the digital products and served on FEMA's NSDI node. |
| **D) Geographic Names Information System (GNIS)** | USGS | GNIS supports all Federal products that use geographic names, such as: *The National Map,* The Single Edition Quad project; revision of USFS visitor maps; National Ocean Service charts; and NPS brochures, among others. | GNIS allows customers to access the official geographic name of features over the Internet. GNIS is a research tool used by Federal, State, county, local and commercial sector employees. GNIS has been used for emergency preparedness and search and rescue. GNIS supports *The National Map.* | GNIS had a plan for collection since its inception in 1973. Phase I of data compilation involved collection of all names appearing on the 1:24,000-scale maps. Phase Ia included collecting names from USFS maps and NOS charts. Phase II, involving collecting names named on State, local and historical maps and text, but not named on Federal maps, has been done by contract and is nearly complete for all but 4 States. | Metadata not yet discoverable at the NSDI Clearinghouse (in planning this year). Metadata is available at the GNIS website. |
| **E) Governmental Units** | Census | Governmental units data is needed for the Censuses and surveys conducted by the Census Bureau. This data also supports any data collection or tabulation activities by the Federal government based upon governmental units. | By establishing a consistent way to collect and interchange governmental unit boundary data and facilitate their maintenance, analysis, and comparison, this theme supports the majority of Federal, State, local, academic and private-vendor geographical statistical programs. | The Census Bureau has collected and maintained boundary information for over 50 years, and the collection plans are under continuous review and improvement. Census uses State, local, and tribal information when updating boundaries. | Until recently, Census forwarded its metadata to the USGS for maintenance on their server. Census is constructing a NSDI compliant server outside its firewall that will hold public metadata and some Census data. |
| **F) Marine Boundaries** | NOAA | NOAA, Census, MMS, FWS, NPS, BLM, FCC, Navy, NIMA, State, and EPA | Marine boundary digital data are used for enforcement, ocean governance, fisheries management, and marine transportation. | The Office of Coast Survey, in partnership with the US Baseline Committee, State, DOJ, and MMS have begun to work on a 2 year project to create legal, digital baselines and maritime boundaries for the US. | Metadata has been created for 100% of the digital maritime boundaries and will be added to the Clearinghouse in FY03. |

| A-16 Lead | Lead Agency | 1) Programs Supported By This Data | 2) Uses Of This Data | 3) Do You Have A Current Charter/Plan For Collection? | 4) Is Metadata Discoverable Through The NSDI Clearinghouse? |
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| **G) National Digital Elevation Geospatial Data (NDEP)** | USGS | All programs that have a geographic and/or spatial context are supported by elevation data. | Elevation data constitute a key base layer. Elevation data are used to rectify the two dimensional geospatial data to ensure and accurate 2 dimensional presentation. | USGS has developed a multi-tiered strategy for coordination of elevation activities. USGS will expand on partnership-based collection of data and integration of these data. NDEP's charter is current and includes the cooperative collection of data acquisition plans for all member agencies to maximize the value of investments. | USGS has made metadata available through the NSDI Clearinghouse. NDEP plans to make it's information available through the Clearinghouse. |
| **H) National Digital Orthophoto Program (NDOP)** | USGS | The National Map (USGS); National Resources Inventory (NRCS), National Soil Surveys (NRCS); USDA Crop Compliance Program, National Forest Mapping Program, National Land Management Program (BLM), Flood Mapping Program (FEMA) | Digital Orthophoto Quads (DOQs) are used to maintain the 1:24,000-scale maps through digital revision products. DOQs are an essential GIS data layer used to automate and support geographic applications. | NDOP was chartered in 1993; Charter was revised and updated in 2000. NDOP Project Coordination Subcommittee implements annual plans for imagery acquisition and orthoimagery production based on Federal funding levels and State partnerships. | Yes, at the NSDI Clearinghouse node and through the USGS Clearinghouse node (http://mapping.usgs.gov/nsdi/) |
| **I) Public Health** | HHS | Supports: Agency for Toxic Substances and Disease Registry: GIS; Centers for Disease Control (CDC): Immunization Registries; National Electronic Disease Surveillance System; Health Alert Network; the Environmental Health Tracking Network | Data use promotes further development of geographic government. | Charter in need of update. | HHS is working on a detailed strategy that will result in a new HHS portal. |
| **J) Transportation Inland Waterway (Marine Transportation)** | USACE | 33 CFR - Navigation and Navigable Waters | Customers - Hydrographic survey and geospatial channel condition data provides accurate and up-to-date information for navigation planning, data also supports waterway charts for safety of navigation. Agency - Survey and channel condition data enables construction and operational activities to maintain minimum channel depth and width, and decision support for flood control and environmental analysis. | Data collection guided by Engineer Regulation 1130-2-520, Dredging and Navigation Operations and Maintenance; and Engineer Manual 1110-2-1003, Hydrographic Surveying. The Engineer Manual is to be updated with further guidance on production and publication of electronic chart data for navigation safety. | Metadata is available on http://corpsgeo_1.usace.army.mil and http://www.usace.army.mil/who.html#Organized |
| **K) WaterShed Boundaries** | USGS | The National Watershed Boundary Dataset is coordinated under the Subcommittee for Spatial Water Data, which coordinates water data among all levels of government and the private sector. partnerships are with USGS/ NRCS, EPA, and NOAA. | Watershed boundaries are used by many agencies to derive streamflow characteristics, flood forecasts, TMDL's and other hydrologic models. Additionally many Federal, State, and local agencies use this dataset for planning, resource and basin assessment. | The Subcommittee for Spatial Water Data has the revision to the "Federal Guidelines for Delineation of Hydrologic Unit Boundaries" in review. | Datasets are still in development. When complete the metadata will be served through the NRCS Lighthouse node to the NSDI. |

| A-16 Lead | 5) Status Of This Theme's Standards | 6) FY 2001/2002 Activities | 7) Data Sharing Policy | 8) Lessons Learned |
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| **A) Bathymetric Elevation** | | | | |
| **B) Earth Cover. (Multi-Resolution Land Characteristics (MRLC) Consortium)** | National Land Cover Dataset uses the Anderson Land Cover Classification standard, and applicable data and process standards. Without an accepted earth cover standard, NLCD sues a state-of-the-practice database structure allowing users to produce derivation land cover classifications on demand. | 90% of Landsat-7 data have been acquired and are available online. 4 of 66 mapping zones have been completed. | All datasets are available to public access. | Not at this time. |
| **C) Flood Mapping** | Standards available at: http://www.fema.gov/mit/tsd/dl_cgs.htm | FEMA completed flood guidance document 'Guidelines & Specifications for Flood Hazard Mapping Partners' which will have annual updates. Many Digital Flood Insurance rate maps were generated. | Official data products created by FEMA are in the public domain. FEMA relies heavily on others for base map data. | None. |
| **D) Geographic Names Information System (GNIS)** | GNIS is participating in the development of the OGC standard for web feature gazetteer service, and such a service will be implemented in the GNIS soon. | Although only 4 States need to be completed for Phase II, funds were not available for the contract (for the first time in 20 years). In FY02 the GNIS database redesign was completed and locational data was converted to geospatial format. A new public GNIS web application has been designed and is in development that will include geographic query and display capabilities. | Yes, there is a formal policy in place, however GNIS is falling behind due to current financial resources. GNIS is continuing to pursue collaborative Federal and State partnerships to support data access through Board on Geographic Names agencies and the Council of Geographic Names Authorities (aka State Geographic Names Authorities). GNIS is actively seeking collaboration with *The National Map* pilot projects. | Not at this time. |
| **E) Governmental Units** | The Governmental Unit Data Content Standard has been informally available for review and comment since June 2002. The Governmental Units Framework proposal was submitted for review in August 2002 through the ANSI/INCITS process. The standard will be approved as a Geo One Stop framework standard. | The draft Governmental Unit Boundary Data Content Standard has been presented at both the NACo and ESRI Conferences. It was also presented at the Subcommittee on Cultural and Demographic meeting in June 2002. | Governmental Units, including metadata are included as components in the vast collection of data products available to the public that are produced by the Census Bureau. Boundary data will also be made available through USGS' *The National Map.* | None. |
| **F) Marine Boundaries** | The Working Group is collaborating with the Cadastral Subcommittee to incorporate a marine boundary component into the Cadastral Data Standard. | April 2002-Began work to create a digital baseline and boundaries for the NW Hawaiian Islands; July 2002- 50% of the NW Hawaiian Island charts were brought to the U.S. Baseline Committee for approval; August 2002- Met with MMS to share technical expertise, Worked with FWS to update Midway Island Coast Pilot and nautical chart notes; September 2002- Met with MMS and CARIS' technical support to share technical expertise. | A National Ocean Service (NOS) enterprise architecture is being developed to provide full and open access to NOS data holdings. The NOS Enterprise GIS system will likely be integrated with the architecture of the Geo 1 Stop Portal. | Not at this time. |

| A-16 Lead | 5) Status Of This Theme's Standards | 6) FY 2001/2002 Activities | 7) Data Sharing Policy | 8) Lessons Learned |
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| **G) National Digital Elevation Geospatial Data (NDEP)** | USGS has had Standards & Specifications in place for 20 years for Digital Elevation Models. USGS has also implemented a Framework model for elevation data. NDEP is developing guidelines regarding data content, process information, and reference appropriate endorsed standards, | In FY02 & 03 USGS implemented Internet access to Framework Elevation Data. 40% of CONUS is available for multi-resolution integration. | Yes, USGS has a formal policy in place for placing it's holdings in the public domain although there are financial limitations to this commitment. USGS is pursing collaborative Federal, State, and local partnerships to expand these services to provide maximum benefit to the broadest community. | One size does not fit all. Standards for data, process and transfer need to be flexible. Determine funding strategies to leverage dollars to host geospatial data for many agencies to save money and avoid redundancy. |
| **H) National Digital Orthophoto Program (NDOP)** | *Standards for Digital Orthophotos* is available online at (http://rockyweb.cr.usgs.gov/nmpstds/doqstds.html) as is the FGDC adopted *Content Standard for Digital Orthoimagery* | First-time coverage of DOQs (1 m. resolution) over the conterminous U.S. is 98% completed. Partnerships with State high resolution orthoimagery programs (less than 1 m. resolution) have begun. Partnerships with cities have begun for production of high resolution orthoimagery coverage. | NDOP produces only public domain orthoimagery data. The USGS acts as the default agency to archive and serve tiled orthoimagery data to cooperative partners and the public. | USGS needs to plan and implement the model for orthoimagery archives and public access that satisfies the requirements of the National map and Geospatial One Stop. Collaborative strategies must be put in place to fund hosting and maintenance of these large multi-terabyte datasets. |
| **I) Public Health** | N/A | The Steering Committee is working with the HHS Data Council to develop a geospatial metadata directory. | The HHS Information Quality Guidelines reflect HHS's long tradition and policy of providing and promoting access to the research and statistical data that it funds. Data development within HHS has 2 overarching goals: attention to information quality, and commitment to making data supported with HHS funds available to the public. See response for more. | No. |
| **J) Transportation Inland Waterway (Marine Transportation)** | The Engineer Manual specifies data collection and processing in detail. | 1/2 of all USACE coastal districts serve vector data files with various formats, content and scale. Approximately 3,000 mi of inland waterways have been charted in international S-57 format and will be published in 2002. | Engineer Regulation 110-1-8156 specifies agency policy for geospatial data dissemination. Further guidance on electronic navigation chart (ENC) data compilation is under development. Financial resources have been allocated for ten years; collaborative federal partnerships sought to accelerate development and coordinate dissemination. | Coordination for common definition and lead responsibility is needed for certain inland waterway features, such as shoreline and river mile markers. |
| **K) WaterShed Boundaries** | Subcommittee for Spatial Water Data has the revision to the "Federal Guidelines for Delineation of Hydrologic Unit Boundaries" in review. | USGS/WRD chairs the Subcommittee for Spatial Water Data. The Chair, USGS, EPA, and NRCS principals have conducted multi-state workshops to develop a process for across state agreement in the watershed boundaries developed by the States. | No policy for data sharing. The Subcommittee charter states that the subcommittee is to "facilitate the exchange of information and the transfer of data". | A subcommittee is preferable to one agency leading the development of guidelines. |